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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/486,719 08/02/00 BOIRE

P 1247-0855-OV

EXAMINER

IM22/0606

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ART UNIT

PAPER NUMBER

1775

DATE MAILED:

06/06/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/486,719

Applicant(s)

BOIRE ET AL.

Examiner

Andrew T Piziali

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2000 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

Specification

1. The following guidelines illustrate the preferred layout and content for patent applications. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

The following order or arrangement is preferred in framing the specification and, except for the reference to "Microfiche Appendix" and the drawings, each of the lettered items should appear in upper case, without underlining or bold type, as section headings. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) Title of the Invention.
- (b) Cross-References to Related Applications.
- (c) Statement Regarding Federally Sponsored Research or Development.
- (d) Reference to a "Microfiche Appendix" (see 37 CFR 1.96).
- (e) Background of the Invention.
 1. Field of the Invention.
 2. Description of the Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) Brief Summary of the Invention.
- (g) Brief Description of the Several Views of the Drawing(s).
- (h) Detailed Description of the Invention.
- (i) Claim or Claims (commencing on a separate sheet).
- (j) Abstract of the Disclosure (commencing on a separate sheet).
- (k) Drawings.
- (l) Sequence Listing (see 37 CFR 1.821-1.825).

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Page 17, line 15, page 18, lines 15, 23, 29 and 36 and in claims 1, 7, 12, 13 and 14 reference is made to reference sign 3, but reference sign 3 is not included in the drawing. Correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 1775

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 6-7, 10 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The use of the term "especially" before a statement is indefinite, because it is unclear what statements applicant is intending to claim.

5. Claim 15 provides for the use of the glazing, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim Rejections - 35 USC § 101

6. Claim 15 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Art Unit: 1775

8. Claims 1, 4-7 and 12-13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,777,779 to Hashimoto.

Regarding claim 1, Hashimoto discloses an electrochromic device colored or colorless, corresponding to an applied electrical field (column 1, lines 5-18). Hashimoto discloses that an anti-reflection coating is provided on the surface of the electrochromic device (column 3, lines 1-7).

Regarding claims 4-6, Hashimoto discloses a first or second conductive layer of silicon oxide (refractive index between 1.6 to 1.9) for attenuating the color of the glazing in reflection (column 4, lines 1-8).

Regarding claim 7, Hashimoto discloses a first or second conductive layer of tantalum oxide or silicon oxide having a tie-layer function (column 4, lines 1-8).

Regarding claim 12, Hashimoto discloses that the electrically controllable system is a superposition of functional layers placed between two carrier substances (column 2, lines 51-65 and column 6, lines 18-36).

Regarding claim 13, Hashimoto does not mention the use of a flexible substrate laminating at least one of the transparent carrier substrates, but Hashimoto does disclose the use of a transparent resin between the transparent carrier substrates and the electrically controllable system to adhere the transparent carrier substrates (column 6, lines 18-36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a flexible substrate in place of the transparent resin, because the flexible substrate adheres the transparent carrier substrates.

Art Unit: 1775

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2-3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto as applied to claim 1 above, and further in view of Japanese Patent No. 08-083581 to Kiju.

Hashimoto discloses the use of an anti-reflection film composed of a plurality of different kinds of layers on the surface of an electrochromic device (column 3, lines 1-7), but does not mention the use of alternating high and low refractive index materials. Kiju discloses an anti-reflection and anti-static film, possessing electromagnetic screening properties, composed of alternating layers of high refractive index and low refractive index films, used for various display devices (abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the coating disclosed by Kiju, on the glazing of Hashimoto, because the coating prevents surface reflection and static and reduces electromagnetic fields which are properties desirable in specific glazing applications.

11. Claims 8-9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto as applied to claim 1 above, and further in view of European Patent No. 692,463 to Chartier.

Hashimoto does not mention the use of a coating with hydrophobic properties. Chartier discloses the use of a hydrophobic-oleophobic coating, on a glass substrate, to give the glass

Art Unit: 1775

substrate a non-wetting property (abstract). The hydrophobic-oleophobic coating comprises at least one hydrolysable fluorinated alkylsilane (abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the coating disclosed by Chartier, on the glazing of Hashimoto, because the coating gives the glazing a non-wetting surface property.

12. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto as applied to claim 1 above, and further in view of U.S. Patent No. 5, 578,404 to Kliem.

Hashimoto does not disclose the use of a protective film on the transparent carrier substrate. Kliem discloses a liquid crystal display device that possesses a triacetate polymer protective film to protect the inside layers (column 14, lines 20-36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the polymeric protective film of Kliem, to the glazing of Hashimoto, because the film protects the glazing layers from the environment.

13. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto as applied to claim 1 above, and further in view of International Publication No. WO 97/10185 to Chopin.

Hashimoto does not mention the use of a coating with photocatalytic properties, but Chopin discloses a substrate coating with photocatalytic properties comprising titanium dioxide at least partially crystallized in the anatase form (abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the photocatalytic coating of Chopin, to the glazing of Hashimoto, because the coating gives the glazing anti-fouling properties.

Art Unit: 1775

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Piziali whose telephone number is (703) 306-0145. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax numbers for the organization where this application or proceeding is assigned are (703) 305-5408 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5665.

atp

atp

May 24, 2001

Deborah Jones
DEBORAH JONES
SUPERVISORY PATENT EXAMINER